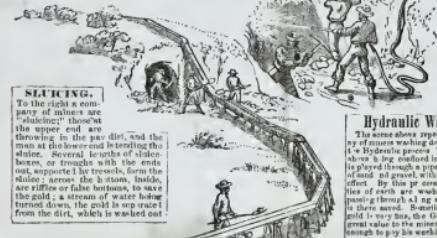


# HUTCHINGS' CALIFORNIA SCENES.—METHODS OF MINING.



## SINKING A SHAFT.

This represents the above method of shafting. These are used to ascertain if there is pay dirt upon the bed rock, or in any strata of gravel above it; to find the border of a vein, or to ascertain the depth of a vein. Sometimes all the pay dirt is thus lost by the windings. The shafts are frequently very deep; one at Yerkesville, Trinity Co., is 60 feet in depth.



## SHAFTING.

To the right a company of miners are "shafting." The upper end are throwing the pay dirt and the main thickness of dirt into the sluice. Several lengths of slate boxes are used to hold the dirt, supported by trestles, form the sluice across the tunnel, inside. As soon as the slate boxes are full, they are taken out, and the gold is washed from them; a stream of water being turned down, the gold is run out from the drift, which is washed out.



## GROUND SLICING.

This illustrates one of the many methods of ground slicing. A trench is first dug down the hill side, in which a small stream of water is turned; miners then lay a board across the trench, and with their pick & shovel, they grave a drift, while the force of the water carries away the dirt below. Sometimes a stream of water is made to run by the side of a bank, across the top of which a drift is dug down the bank, it lets into the water, by which means the dirt is washed down, the drift is afterwards carefully washed.

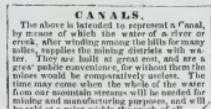


## PANNING OUT.

The above represents the primitive method of dredging. A pan filled with earth is set into the water, and by shaking it from side to side, the dirt is washed out, leaving the gold or gravel at the bottom of the pan, is then saved. This method is still used by every countryman in California, while the Chinese and Mexican use the pan or bowl exclusively.

Tunnels are driven into the hills, to save the labor of washing down the whole. The extra sign val or pay dirt upon the bed rock is generally the richer and is taken up as represented in the illustration.

The Table Mountain Tunnel near Antelope, is 900 ft through red rock, 100 ft thick, 100 days having been expended.



## CANALS.

The above is intended to represent a Canal, by means of which the water of a river or stream is diverted into another stream, or valley, supplies the mining districts with water. They are built of great cost, and are a great expense to the miners. The time required to build a canal, and the mines would be comparatively useless. The water is usually taken from the streams from our mountain streams will be needed for mining and manufacturing purposes, and will be sold at a price within the reach of all.



## The Hydraulic Telegraph.

The above represents that manner of canalizing the "Hydraulic Telegraph," as it is named. A wooden pipe is placed upon poles high enough through which the water is sent from the canals, fixed to a barrel or square wooden fance at the end, to which is attached a pipe leading to the sluice, so that when the water is sent above the pipe it comes with the water escapes, thus creating the required force for washing down banks of earth into the sluice.



## Hydraulic Washing.

The above shows a company of miners washing down the hill to a Hydraulic Telegraph. The water is sent from the canals, through a pipe, which has a valve, so that when it is played through a pipe upon the bank, it has a powerful effect. By this process great quantities of earth are washed away, and the water passes through along sluice, the gold is then saved. Sometimes when the water is sent over the bank, it has a great value to the miner, as it is strong enough to dry up his water well.



## THE GUYASKULUS.

The above is an illustration of a gold-washing machine, recently invented by Mr. Joe. Patterson of Placerville, Cal., and is now in use in the State of Oregon, in which the finest results have been secured. The rocks are even rolled over the machine, which is in the dirt, so that the water will roll over them, and get a into the machine, where the water is turned over and over by means of a wheel, and being washed over patent jets.



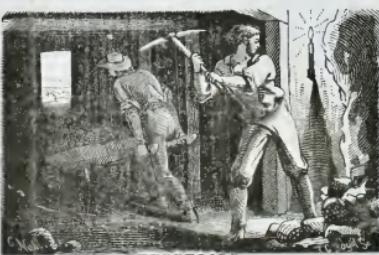
**TOMING.**—The above represents three men working with a Tom; two are vigorously picking down and shoveling the dirt into the upper part of the Tom, and the other is moving it about with a hoe or shovel, to wash it and throw on the larger rock or ridges. The gold, dirt and water passeth through an iron box at the lower end into a large box made nearby, where the gold is saved.



## TURNING THE RIVER.

This view represents the building of a dam across the river, to turn it into a flame. From ten to twenty men form themselves into a joint stock company, for the purpose of dredging and working the bed of the river. Sometimes several companies will unite, and by this means a river will be turned into a flame, six miles in length, into which the water is turned. Wheels are placed in the flame to pump out the remaining water, or elevate rocks or drift from the river, after which the old bed is washed out.

The "Sail or Cleam" on Feather River, cost over \$100,000, and employs three hundred men daily.



## TUNNELING.



## ROCKING THE CRADLE.

The above represents the cradles, or rockers, made of wood, and packed with sand, and taken into the water or upper, when water is put on a dipper end is taken off, as the cradles are rocked from side to side, the earth is washed out, and the gold remains in the cradles. The back of the cradles, and the gold remains in the open, or at the end of the cradles. Chinamen are the principal operators now with this machine.

NAMES OF MINING LOCALITIES
Sal Pork Ridge,
Potato Hill,
Mugwamp,
Yellow Eye,
Devil's Bath,
Last Chance,
Red Caps' Bar,
Bunkumville,
Whiskey Slide,
One Horse Town,
Humbung Creek,
Sucker Flat,
Red dog Diggings
Small Gulch,
Shine Tail Bend,
Digger Creek,
Popped Diggings,
Wolf Bar,
Hell's Delight,
Deadwood,
Buckeye Flat,
Oak Run,
Gass Hill,
Squaw Creek,
Peppermint Hill,
Brandy Creek,

Riot Gut,
Dog Town,
Mad Ox Canyon,
Yankee Jim,
Sailors Diggings,
Calf Bar,
Stonewall Bar,
Rattlesnake Bar,
Stone Gulch,
Hardscrabble,
Black City,
Coffee Creek,
Poverty Bar,
Horse-shoe Bend,
Secret Ravine,

Don Pedro's Bar,
Mormon Ravine,
Rough and Ready
Blanket Creek,
Angels' Camp,
Lake City,
Marshall,
Mosquito Kanyon
Bottle Hill,
Pitchfork,
Pot Luck City,
Bloody Run,
Pepper Box,
Louise Village,
Hang Town,
Ground Hog Glory,
Big Bear Valley Bar
Burn Blossom Plain,
Egg-Nog Settlement,
Mad Mule Kanyon.

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